Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application. Claims 1-14 have been canceled without prejudice or disclaimer of the subject matter claimed therein.

Claims

Claims 1-14 (canceled)

Claim 15 (new): An isolated probe that detects activation of the KDR/Flk-1 receptor and binds tyrosine residue Y1214 of the KDR/Flk-1 receptor.

Claim 16 (new): The probe of claim 15, wherein the probe is an antibody.

Claim 17 (new): The probe of claim 16, wherein the probe is a monoclonal antibody.

Claim 18 (new): The probe of claim 16, wherein the probe is a polyclonal antibody.

Claim 19 (new): A composition comprising the probe of claim 15 and a carrier.

Claim 20 (new): A pharmaceutical composition comprising the probe of claim 15 and a pharmaceutically acceptable carrier.

Claim 21 (new): A kit for detecting the activation of the KDR/Flk-1 receptor comprising the probe of claim 15 and reagents for a detection assay.

Claim 22 (new): A method of generating the antibody of claim 16, comprising immunizing an animal with a peptide comprising Y1214 of the KDR/Flk-1 receptor and isolating the antibody from the animal.

Claim 23 (new): The method of claim 22, wherein the animal is a mammal.

Claim 24 (new): The method of claim 22, wherein the peptide comprises SEQ ID NO: 2.

Claim 25 (new): The method of claim 22, wherein the peptide comprises SEQ ID NO: 1.

Claim 26 (new): A method for detecting the activation of the KDR/Flk-1 receptor comprising mixing the probe of claim 15 with a biological sample and detecting a signal which indicates activation of the KDR/Flk-1 receptor.

Claim 27 (new): The method of claim 26, wherein detecting the signal comprises determining the phosphorylation state of the KDR/Flk-1 receptor.

Claim 28 (new): The method of claim 26, wherein the method further comprises detecting a change in activation state of the KDR/Flk-1 receptor.

Claim 29 (new): The method of claim 28, wherein detecting a change in activation state comprises measuring a signal that is proportional to the proportion of Y1214 of KDR/Flk-1 receptor in the phosphorylated or unphosphorylated state.

Claim 30 (new): The method of claim 28, wherein detecting a change in activation state comprises using NMR to follow changes in the phosphorylation state of Y1214 of KDR/Flk-1 receptor.

Claim 31 (new): The method of claim 26, wherein the biological sample is obtained from a mammal that has been dosed with a range of concentrations of a KDR/Flt-1 receptor inhibitor and wherein the method further comprises measuring a change in activation state of the KDR/Flk-1 receptor.

Claim 32 (new): The method of claim 31, wherein the method further comprises determining an effective dose of the inhibitor by calculating the effective dose of the inhibitor from the measured change in activation state of the KDR/Flk-1 receptor.

Claim 33 (new): A method for detecting the presence of the KDR/Flk-1 receptor comprising mixing the probe of claim 15 with a biological sample to detect the presence of the KDR/Flk-1 receptor.

Claim 34 (new): A method for measuring the amount of KDR/Flk-1 receptor in a sample comprising mixing the probe of claim 15 with a biological sample and measuring the amount of KDR/Flk-1 receptor in the sample.

Claim 35 (new): The method of claim 34, wherein measuring the amount of KDR/Flk-1 receptor in the sample comprises performing an assay selected from the group consisting of a fluorimetric assay, a chromogenic assay, a radiolabelled assay, and a chemiluminescence assay.

Claim 36 (new): A method of determining whether a chemical compound is an inhibitor of KDR/Flk-1 receptor comprising mixing the probe of claim 15 with a biological sample that has been administered with the chemical compound and measuring the phosphorylation of the KDR/Flk-1 receptor in the sample.

Claim 37 (new): The method of claim 36, wherein the biological sample is obtained from a mammal.

Claim 38 (new): The method of claim 36, wherein the mammal is a human.